

Claims:

1. A fixed drill bit for use with a well completion string for drilling while casing, comprising:
 - a bit body having an outer surface, said bit body defining a longitudinal bore, wherein the longitudinal bore includes a thread start taper shoulder at a proximal end thereof and integrated female threads;
 - a cutting face on the outer surface of said bit body;
 - said bit body having at least one nozzle formed through a distal end thereof that is in fluid communication with the longitudinal bore;
 - at least one cutting blade extending from said cutting face; and
 - at least one cutter insert; said at least one cutting blade adapted to receive said at least one cutting insert.
2. The fixed drill bit of claim 1, wherein said at least one cutter insert is selected from the group consisting of Polycrystalline Diamond Cutting insert, Tungsten Carbide insert, Synthetic Diamond Impregnated Sintered Carbide Disk insert and Tungsten Carbide post-type Polycrystalline Diamond cutting insert.
3. The fixed drill bit of claim 1, wherein the bit body is of a material that is not readily drillable.
4. The fixed drill bit of claim 1, wherein said at least one cutter insert is attached to said at least 1 cutting blade and is positioned thereto so as to provide minimal coverage.
5. The fixed drill bit of claim 1, wherein each of said at least 1 cutting blade is hardened.

6. The fixed drill bit of claim 1, wherein said at least 1 cutting blade is hardened using external hardface deposition.
7. The fix drill bit of claim 1, wherein said at least 1 cutting blade includes a gauge pad formed integrally therewith.
8. A fixed drill bit for use with a well completion string for drilling while casing comprising:
 - a bit body having an outer surface, said bit body defining a longitudinal bore, wherein the longitudinal bore includes a thread start taper shoulder at a proximal end thereof and integrated female threads;
 - a cutting face on the outer surface of said bit body;
 - at least 3 cutting blades positioned radially around said cutting face and extending therefrom;
 - at least one cutter insert attached to each of said at least 3 cutting blades;
 - and
 - said bit body having at least one nozzle formed through a distal end thereof that is in fluid communication with the longitudinal bore.
9. The fixed drill bit of claim 8, wherein said at least one cutter insert is selected from the group consisting of Polycrystalline Diamond Cutting insert, Tungsten Carbine insert, Synthetic Diamond Impregnated Sintered Carbide Disk insert and Tungsten Carbine post-type Polycrystalline Diamond cutting insert.
10. The fixed drill bit of claim 8, wherein said at least 3 cutting blades are positioned off symmetry radially around said cutting face.

11. The fixed drill bit of claim 8, wherein said at least one cutter insert is attached to each of said at least 3 cutting blades is positioned thereto so as to provide minimal coverage.
12. The fixed drill bit of claim 8, wherein each of said at least 3 cutting blades are hardened.
13. The fixed drill bit of claim 12, wherein each of said at least 3 cutting blades are hardened using external hardface deposition.
14. The fixed drill bit of claim 8, wherein said bit body is of a material that is not readily drillable.
15. The fix drill bit of claim 8, wherein each of said at least 3 cutting blades includes a gauge pad formed integrally therewith.
16. A fixed drill bit for use with a well completion string for drilling while casing comprising:
 - a bit body having an outer surface, said bit body defining a longitudinal bore, wherein the longitudinal bore includes a thread start taper shoulder at a proximal end thereof and integrated female threads;
 - a cutting face on the outer surface of said bit body;
 - said bit body having at least one nozzle formed through a distal end thereof that is in fluid communication with the longitudinal bore; and
 - at least one cutting blade extending from said cutting face, said cutting blade having a sculptured cutting edge.
17. The fixed drill bit of claim 16, wherein said bit body is of a material that is not readily drillable.

18. The fixed drill bit of claim 16, wherein the sculptured cutting edge of said at least 1 cutting blade is of a pattern so as to provide minimal coverage.
19. The fixed drill bit of claim 16, wherein the sculptured cutting edge of said at least 1 cutting blade includes a longitudinal slot.
20. The fixed drill bit of claim 16, wherein said bit body and said at least one cutting blade is hardened.
21. The fixed drill bit of claim 16, wherein said at least 1 cutting blade includes a gauge pad formed integrally therewith.
22. A fixed drill bit for use with well a completion string for drilling while casing comprising:
 - a bit body having an outer surface, said bit body defining a longitudinal bore, wherein the longitudinal bore includes a thread start taper shoulder at a proximal end thereof and integrated female threads;
 - a cutting face on the outer surface of said bit body;
 - said bit body having at least one nozzle formed through a distal end thereof that is in fluid communication with the longitudinal bore; and
 - at least 3 cutting blades positioned radially around said cutting face and extending therefrom, said at least 3 cutting blades having a sculptured cutting edge.
23. The fixed drill bit of claim 22, wherein said bit body is of a material that is not readily drillable.

24. The fixed drill bit of claim 22, wherein the sculptured cutting edges of said at least 3 cutting blades are of a pattern so as to provide minimal coverage.
25. The fixed drill bit of claim 22, wherein the sculptured cutting edge of each of said at least 3 cutting blades includes a longitudinal slot.
26. The fixed drill bit of claim 22, wherein said bit body and said at least 3 cutting blades are hardened.
27. The fixed drill bit of claim 22, wherein each of said at least 3 cutting blades includes a gauge pad formed integrally therewith.
28. A method of milling a fixed drill bit for use with completion strings for drilling while casing, comprising the steps of:
 - providing bit blank;
 - initializing the bit blank with an inner straight bore of two concentric bores of different diameters;
 - milling a blade geometry into the bit blank; and
 - milling female threads into a face of the inner straight bore.